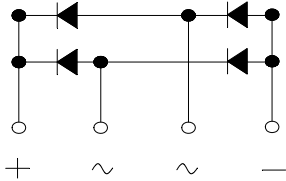
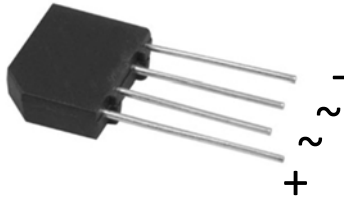




# THE DATASHEET OF KBP310



## Bridge Rectifiers



### Features

- UL recognition, file #E230084
- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

### Mechanical Data

- **Package:** KBP  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

### ■Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310
Device marking code			KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310
Repetitive peak reverse voltage	VRRM	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, Without heatsink T <sub>a</sub> =30°C	I <sub>O</sub>	A	3						
Surge(non-repetitive)forward current @60HZ half-sine wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	60						
Current squared time @1ms≤t<8.3ms T <sub>j</sub> =25°C, rating of per diode	I <sup>2</sup> t	A <sup>2</sup> S	14.9						
Storage temperature	T <sub>stg</sub>	°C	-55 ~+150						
Junction temperature	T <sub>j</sub>	°C	-55 ~+150						

### ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =1.5A	1.05						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	μA	V <sub>RM</sub> =V <sub>RRM</sub>	10						

### ■Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310	
Thermal Resistance <sup>(1)</sup>	Between junction and ambient,	R <sub>θJ-A</sub>	°C/W	20						
	Between junction and lead	R <sub>θJ-L</sub>		11						

Notes  
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.47×0.47”(12×12mm) copper pads



# KBP3005 THRU KBP310

## Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBP3005~KBP310	A1	Approximate 1.75	500	500	5000	Paper Box

## Characteristics (Typical)

FIG1:Io-Ta Curve

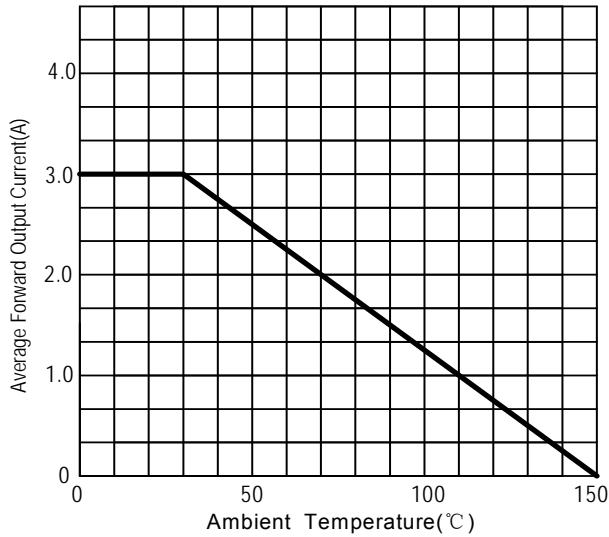


FIG2:Surge Forward Current Capability

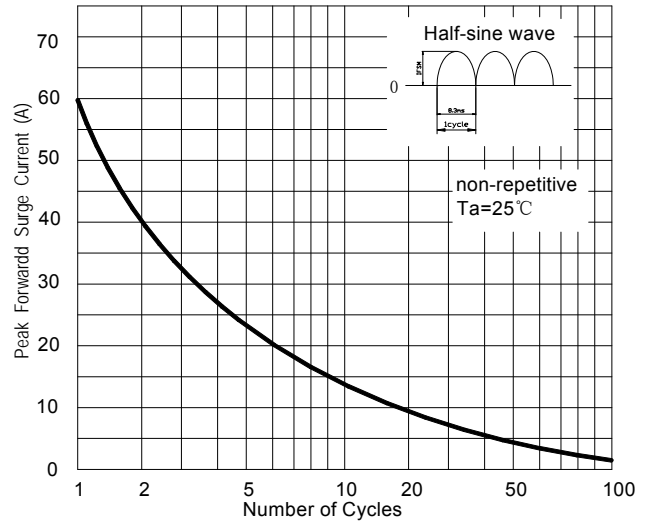


FIG3:Instantaneous Forward Voltage

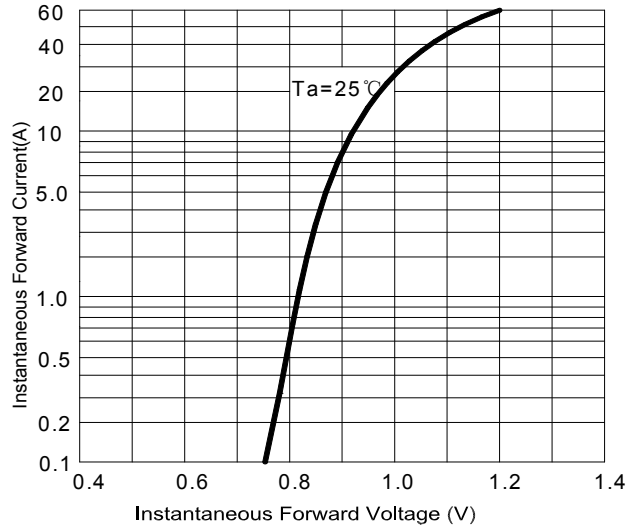
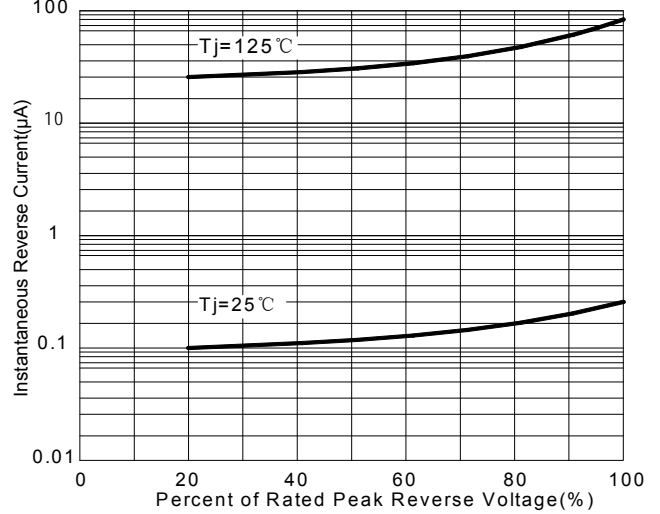


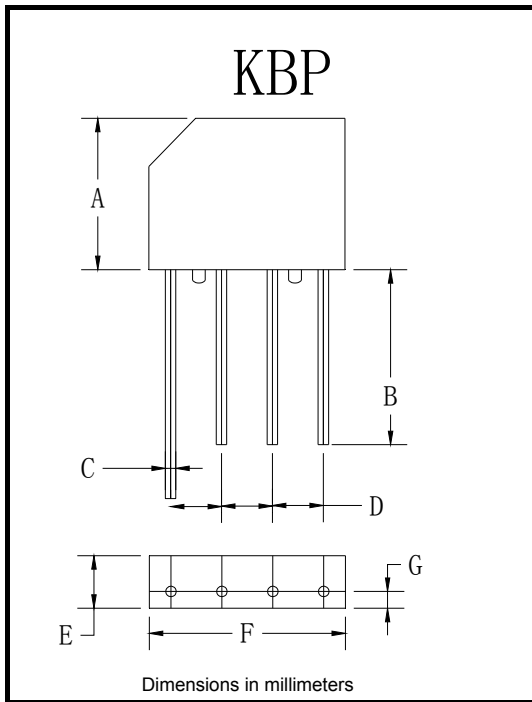
FIG4:Typical Reverse Characteristics





# KBP3005 THRU KBP310

## ■ Outline Dimensions



KBP		
Dim	Min	Max
A	11.0	11.6
B	12.7	/
C	0.7	0.9
D	3.6	4.1
E	3.7	3.95
F	14.4	15.0
G	1.10	1.27



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